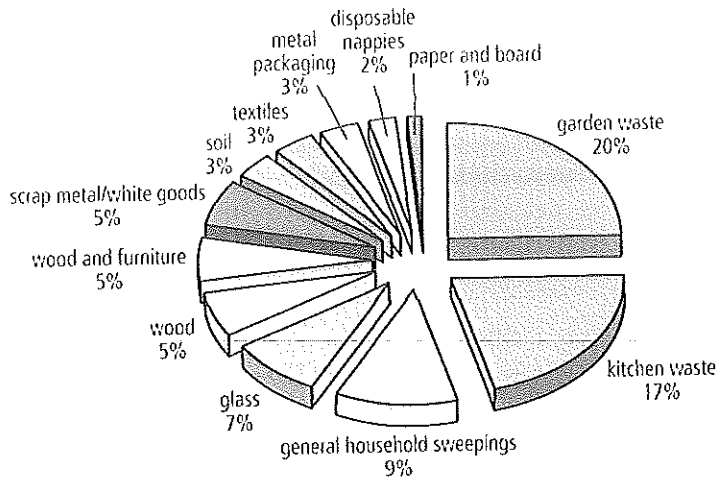


Solid Domestic Waste

5.5.1 Outline the types of solid domestic waste

↑ non-liquid, solid, waste that comes from homes, institutions, & small institutions

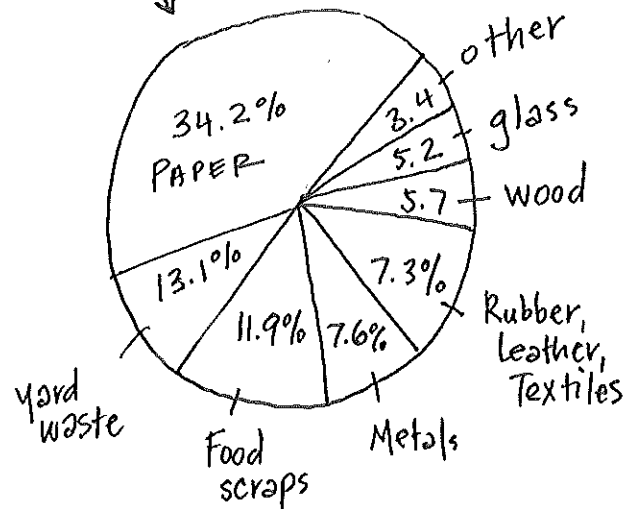
↓ Europe's Averages



← These percentages vary from place to place.

3kg/capita/day in US
500 Kg/capita/year in EU

→ In the US



→ WASTE GENERATION IS RISING IN ALL COUNTRIES

- Plastics, Diapers, Electronics, Plastic Bags

→ Wealthy Societies have
↓ "throwaway society"
Don't fix, just replace

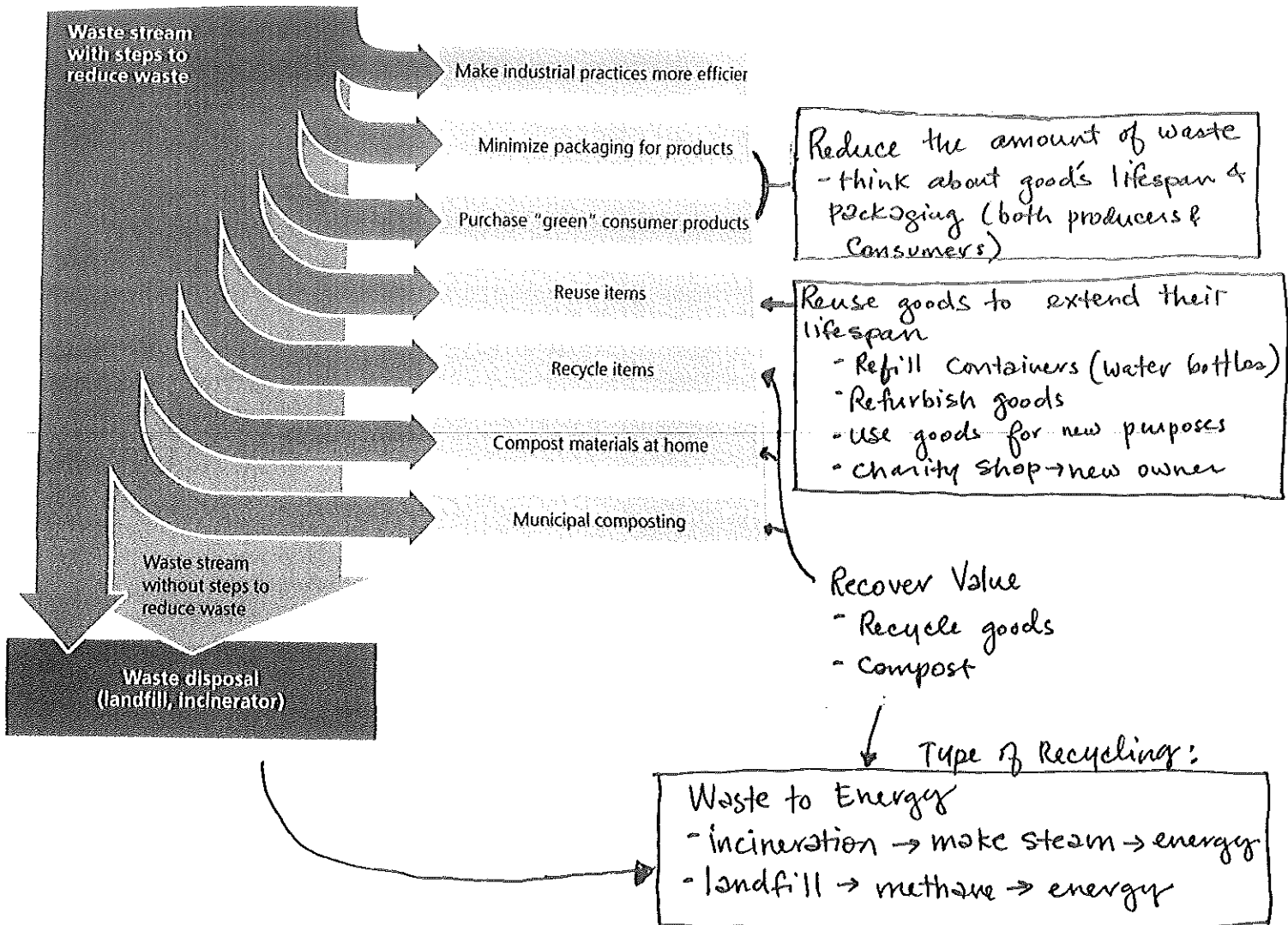


But Recycling & Reusing are becoming more popular in MEDC Countries.

* In MEDC countries up to 50% of waste is food waste.

5.5.2 Describe and evaluate pollution management strategies for solid domestic (municipal) waste

"BIG PICTURE"



PROS & CONS

• Reducing Amount of Waste →
& Reusing Goods

PROS

- less volume in landfill
- air pollution avoided (incineration)
- hard to change habits of "throwaway society"
- hard to "sell" Reuse

CONS

- new technology R & D is expensive

• Recycling →

PROS

- less volume in landfill
- air pollution avoided
- don't need to get new raw materials (less mining & use of oil)

Cons

- high cost to Recycle some stuff
- not normally profitable
- Some materials can't be recycled

example is Aluminium -
Takes 5% of Energy to recycle as get new raw materials

• Composting → what is it? Aerobic decomposition of Biodegradable material. Recycles household waste into humus-like soil. —

Pros

Returns nutrients back to soil
great for gardeners
food waste doesn't go into landfills
& garden waste

Cons

Time consuming, need some space, can seem complicated.

→ Most Waste ends up in Landfills or is Incinerated

In MEDC's countries use
"Sanitary landfills"

these landfills have
barriers preventing
leaching into g.d. water &
runoff from top of pile

In LEDC's countries use
"open dumping"

basically just holes
where trash has been
dumped. - Problems w/
leaching & Runoff

POSITIVES:

- Easy disposal
(most of the time -
out of sight, out of
mind)
- Waste-To-Energy
from methane
• can burn
hazardous waste
- Old, filled, sites can
be used as parks or
nature reserves.

NEGATIVES:

- Problems with water
pollution (leaching &
runoff)
- Methane produced
- Hard to find good
locations for new sites
↓
Run out of space
- Methane can bc. explosive
when it builds up
- chemicals & Heavy Metals
can pollute soil & g.d. water
- Communities don't want
them in their backyards
"NIMBY"
- Methane &
CO₂ are
greenhouse
gasses
- Smelly,
Vermin

Burning Waste

Converts waste to
ash, gas, particulates,
& heat → can be used
to make energy.

POSITIVES:

- Reduces volume
of waste by 80-90%
So use less space in
landfills
- Ash can
be used to
build roads
- good for clinical &
hazardous waste
- Can be used to make
Energy from the heat

NEGATIVES:

- Air Pollution
CO₂, SO_x, NO_x,
NO₂, Chlorine, → lead to
Dioxin, & Smog
Particulates lung disease
- Ash that results is often
toxic & still goes to
landfill.
- Building incinerators is
expensive
- doesn't discourage people from
wasting